Service Manual

74 SM80/02B/02G

Stereo Power Amplifier

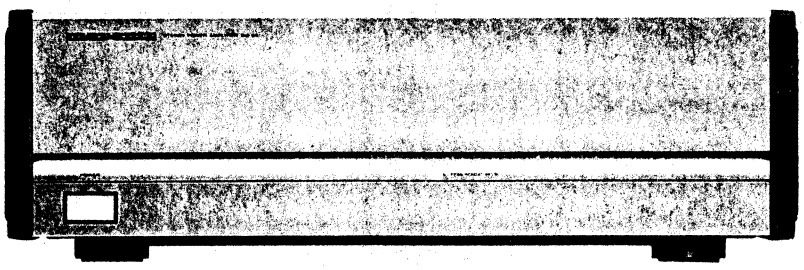


TABLE OF CONTENTS

SECTION		PAGE
1.	BLOCK DIAGRAM	1
2.	SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)	2
3.	EXPLODED VIEW AND PARTS LIST	10
4.	TEST EQUIPMENT REQUIRED FOR SERVICING	12
5.	IDLING CURRENT ADJUSTMENT	12
6.	ELECTRICAL PARTS LIST	13

marantz®

model SM-80

First issue: 1990

4822 725 50921

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.
Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

MARANTZ INTERNATIONAL
Vestdijk 9
5600 MD Eindhoven
The Netherlands
Phone: +31/40.758290
Telefax: +31/40.75.82.99
Telex: 35000 PHTC NL routing IND NLMTFAT

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified.
The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex. 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Alexanderstrasse 1
2000 Hamburg
Germany

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box. 58088
Newville 21114
South Africa

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
MARANTZ
Technischer Service
Duenstrasse 3
3186 Düdingen
Switzerland

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

PORTUGAL
MARANTZ
Divisao philips S.A. service
Outurela-carnaxide
2795 LinDA-A-VELHA
Telex: 43906

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

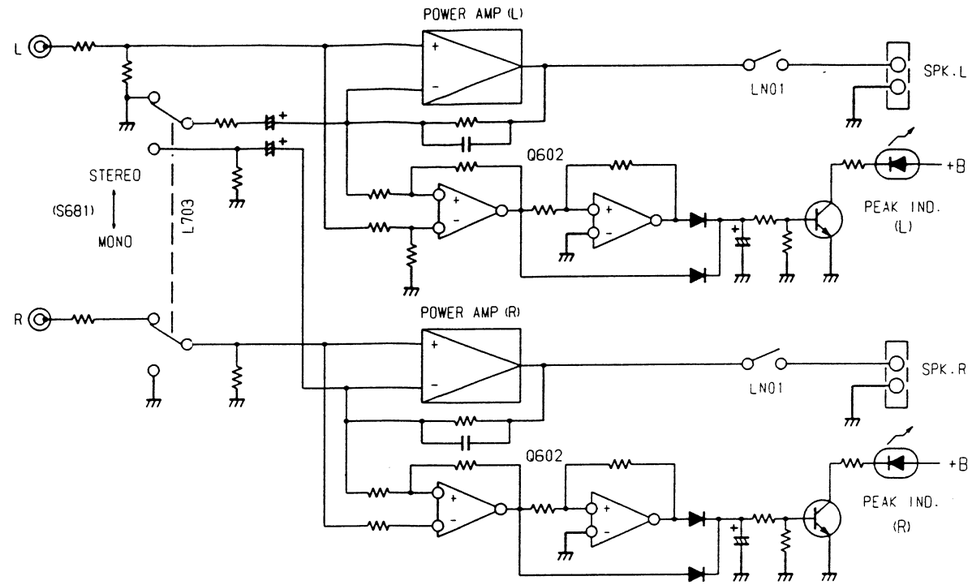
In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

TECHNICAL SPECIFICATIONS (DIN)

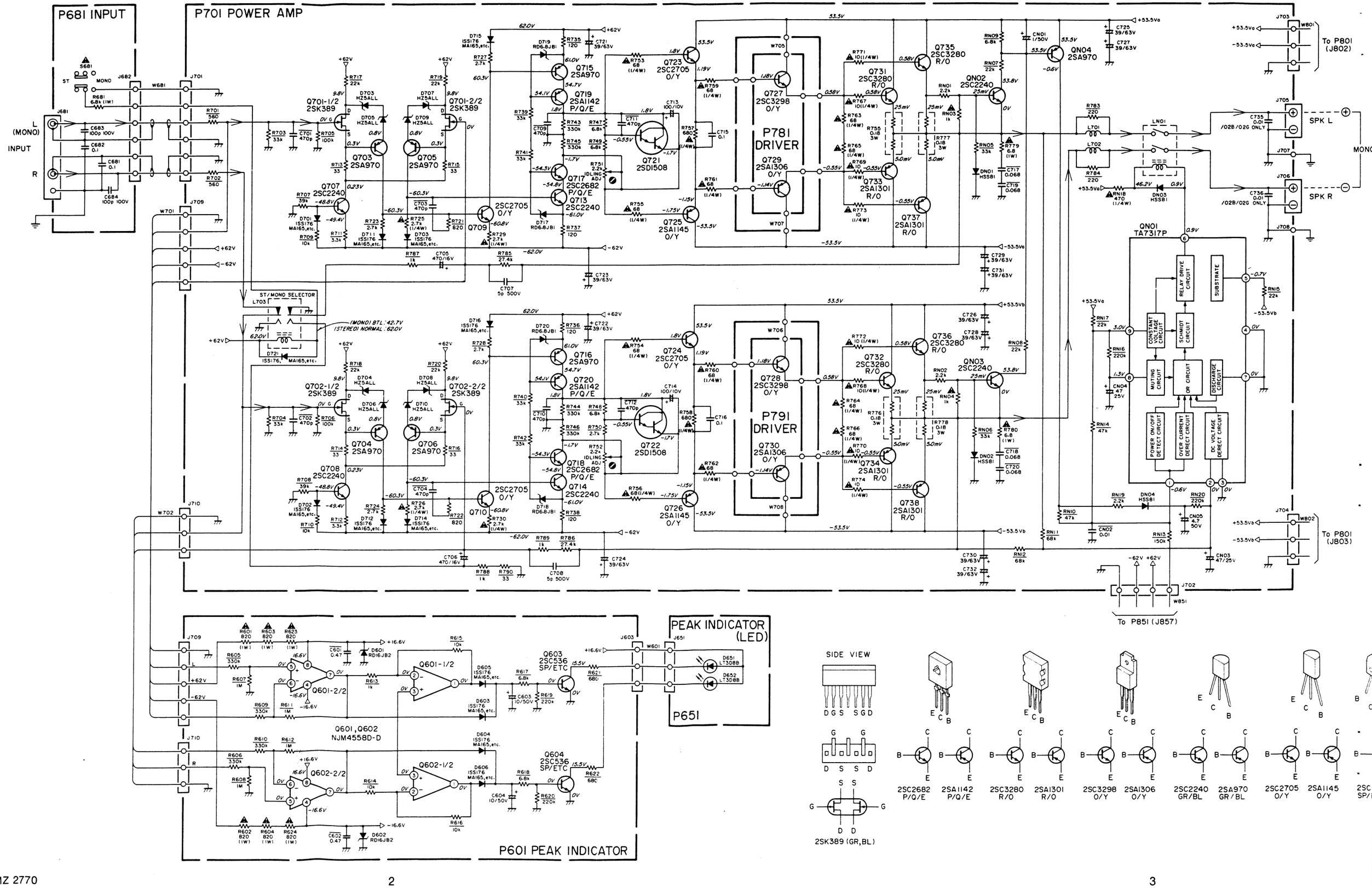
Rated Power Output (20 Hz–20 kHz)	
8 ohms RMS	100 W × 2
4 ohms RMS	150 W × 2
8 ohms (Mono)	300 W × 1
Dynamic Power (stereo)	
8 ohms	130 W × 2
4 ohms	210 W × 2
2 ohms	300 W × 2
THD at Rated Power	
Stereo 8 ohms	0.02%
4 ohms	0.03%
Mono 8 ohms	0.03%
IMD at Rated Power (8 ohms)	0.02%
Damping Factor (1 kHz)	200
Frequency Response (20 Hz–20 kHz)	±0.2 dB
Power Bandwidth at 0.1% THD	10 Hz–40 kHz
Input Sensitivity	1 V
Input Impedance	20k ohms
Channel Crosstalk (10 Hz–10 kHz)	78 dB
S/N Ratio (A-weighted)	121 dB
Power Consumption at max Power	600 W
Dimensions	
Panel Width	420 mm
Panel Height	132 mm
Depth	334 mm
Weight	
Unit alone	13 kg

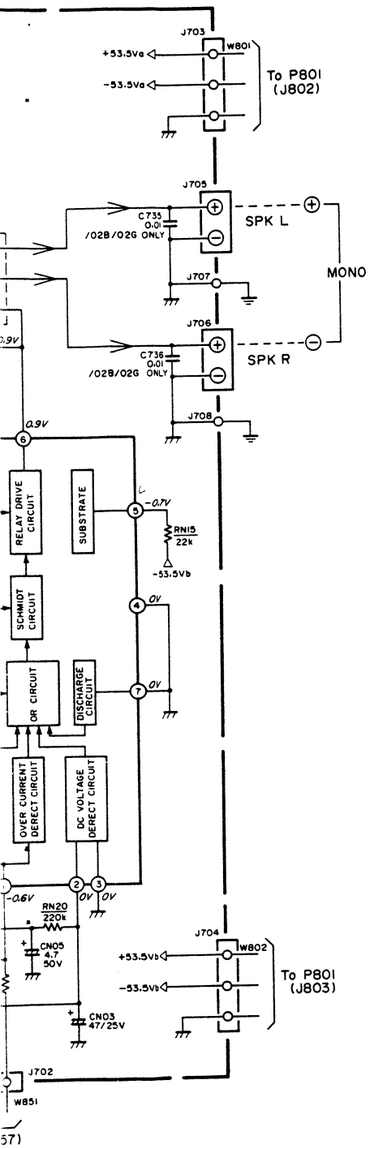
Specifications subject to change without prior notice.

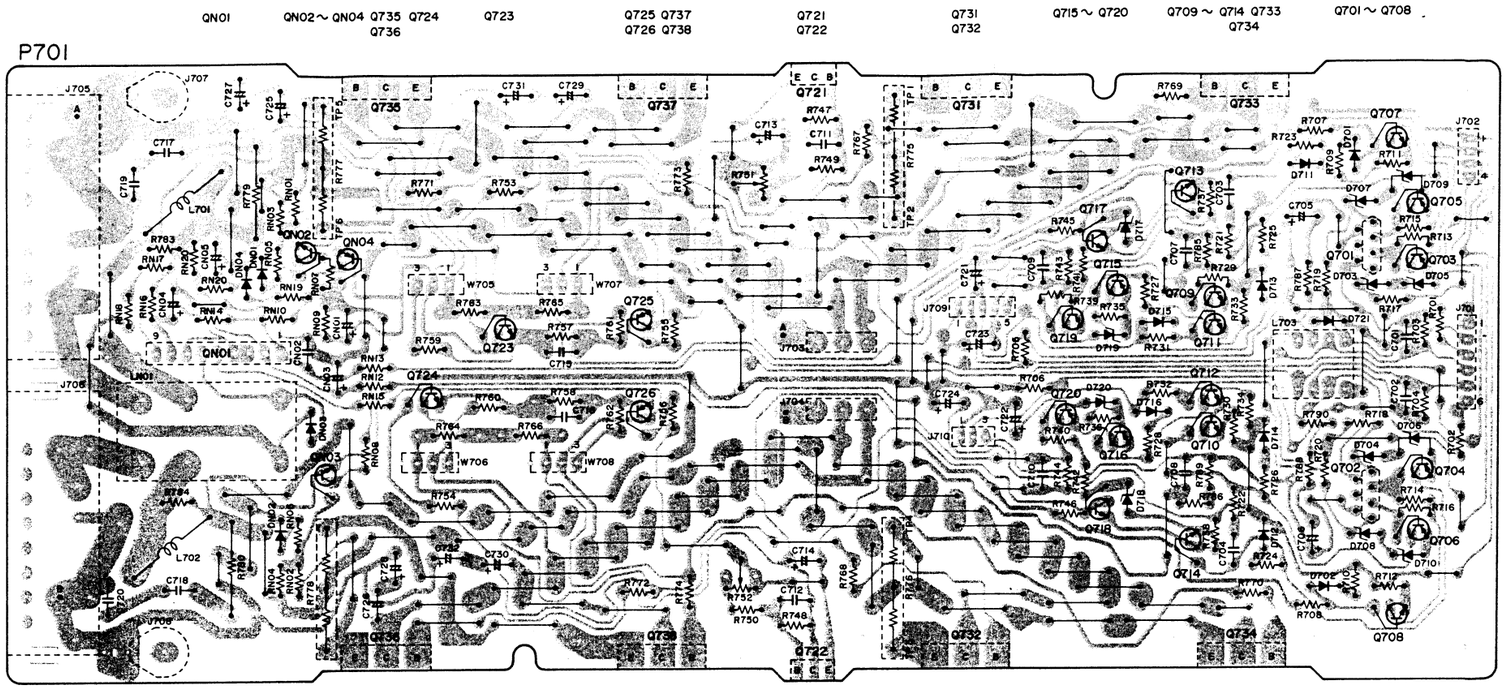
1. BLOCK DIAGRAM



2. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)




J703
W801
+53.5Va
-53.5Va
To P801 (J802)
J705
SPK L
C735 0.01 /02B/02G ONLY
J707
MONO
J706
SPK R
C736 0.01 /02B/02G ONLY
J708
0.9V
RELAY DRIVE CIRCUIT
SUBSTRATE
-0.7V
RN15 22k
-53.5Vb
SCHMIOT CIRCUIT
0V
OR CIRCUIT
DISCHARGE CIRCUIT
OVER CURRENT DERECT CIRCUIT
DC VOLTAGE DERECT CIRCUIT
-0.6V
RN20 220k
CN05 4.7 50V
CN03 47/25V
J704
W802
+53.5Vb
-53.5Vb
To P801 (J803)
J702
W851
TOP VIEW
NJM4558D-D
SIDE VIEW
TA7317P
E C B
2SC2240 GR/BL
2SA970 GR/BL
2SC2705 O/Y
2SA1145 O/Y
2SC536 SP/ETC
2SD1508


QN01
QN02～QN04 Q735 Q724 Q736
Q723
Q725 Q737 Q726 Q738
Q721 Q722
Q731 Q732
Q715～Q720
Q709～Q714 Q733 Q734
Q701～Q708
P701
J705
J707
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J708
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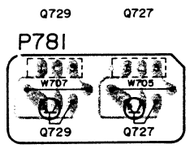
Q707
Q708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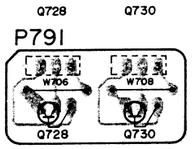
Q727
P781
W707
W705
Q729
Q727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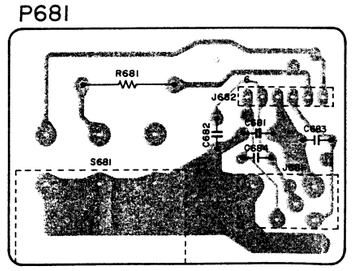
Q728
Q730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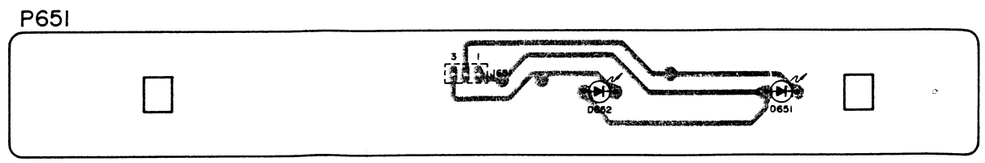
S681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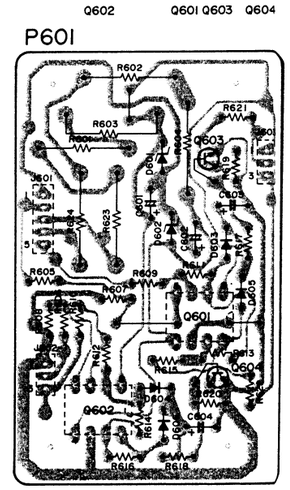
D652
D651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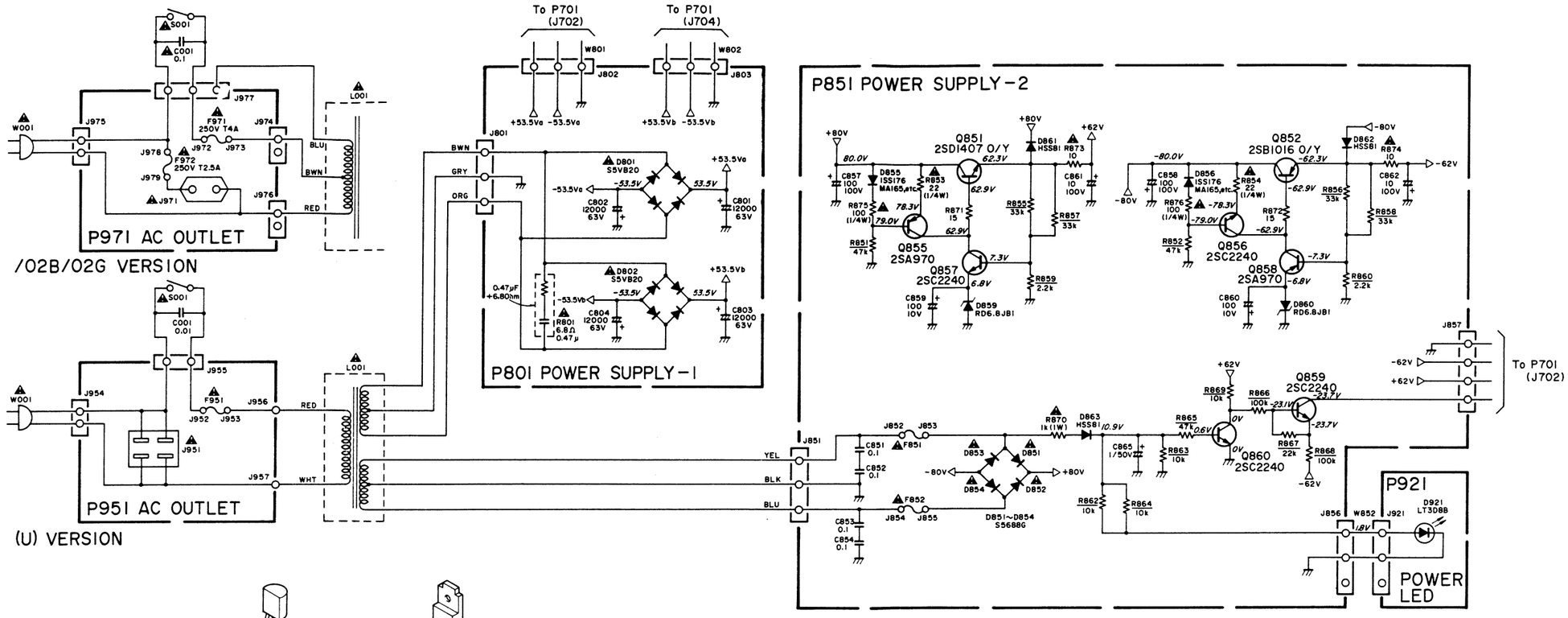
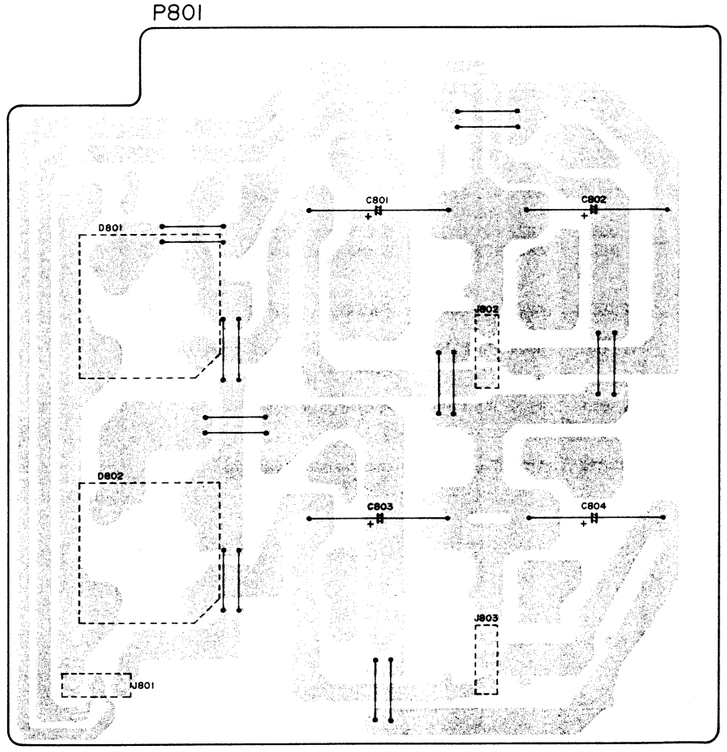
Q601 Q603
Q604
P601
Q601
Q602
Q603
Q604


P971 AC OUTLET
/02B/02G VERSION
P951 AC OUTLET
(U) VERSION
P801 POWER SUPPLY-1
To P701 (J702)
To P701 (J704)
P851 POWER SUPPLY-2
To P701 (J702)
P921
POWER LED
2SC2240
2SA970
2SD1407 O/Y
2SB1016 O/Y

P801



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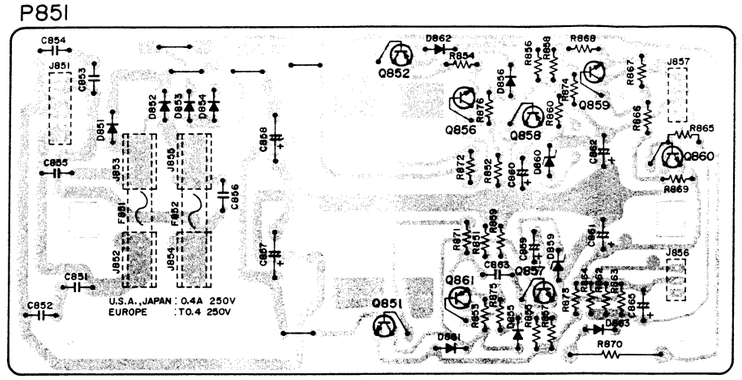

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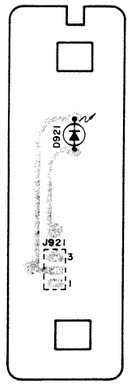

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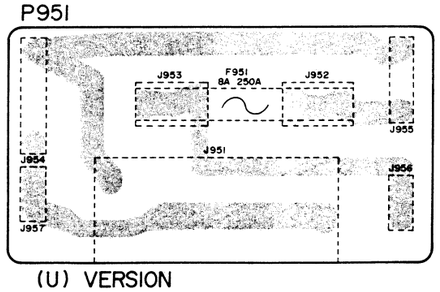
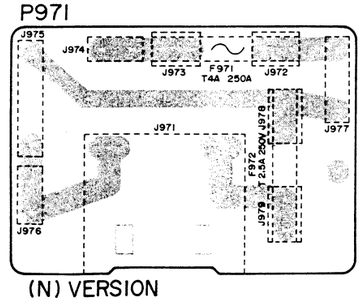


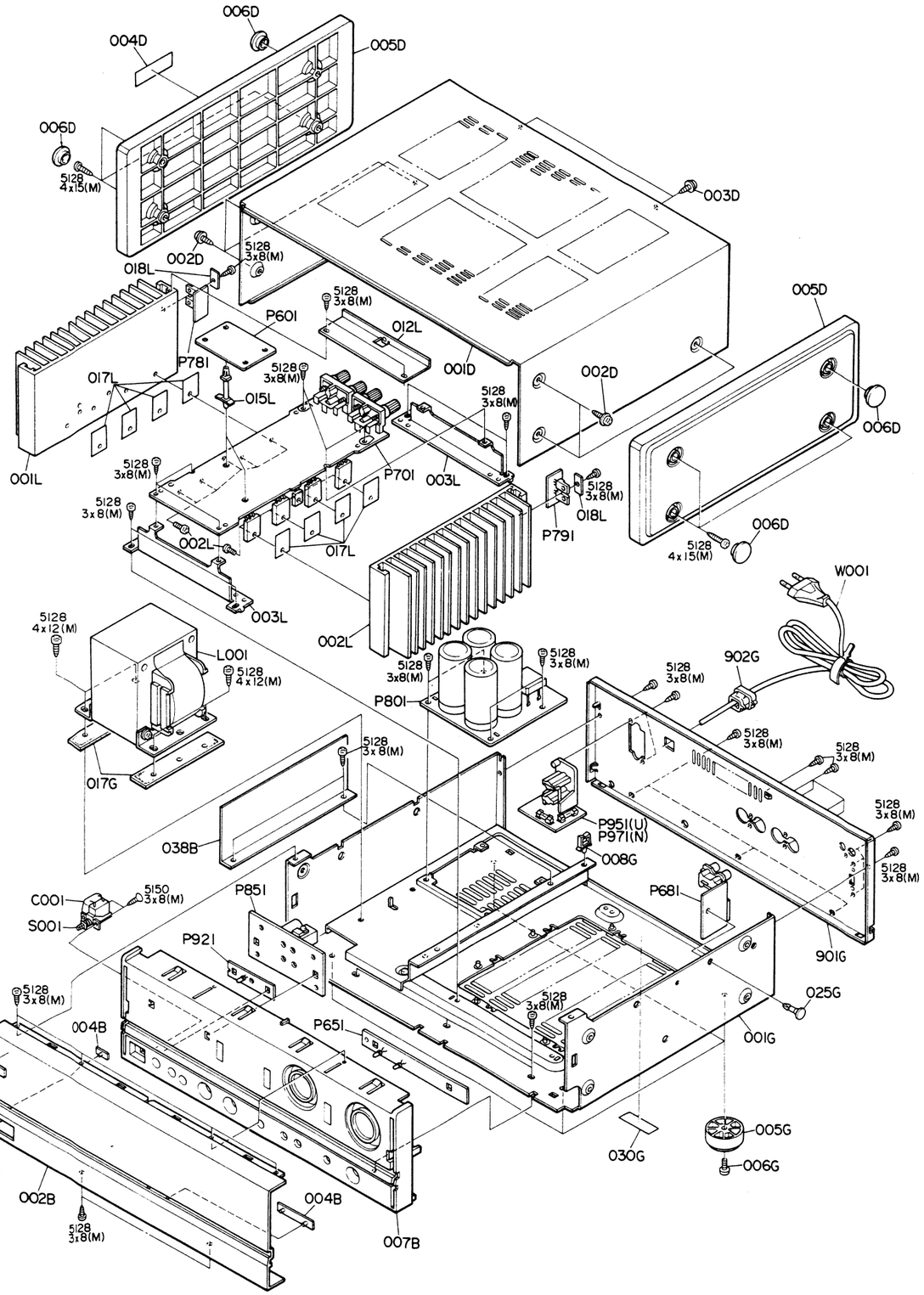
(U) VERSION

P971



(N) VERSION

3. EXPLODED VIEW AND PARTS LIST



REF. DESIG.	PART NO.	DESCRIPTION
002B	4822 447 50127	Front Panel (BLK) /02B
	4822 447 50132	Front Panel (GLD) /02G
	4822	Front Panel (BLK) [U]
003B	4822 454 11825	Badge, MARANTZ (BLK) /02B
	4822 459 10855	Badge, MARANTZ (GLD) /02G
	4822 454 40107	Badge, PHILIPS [U]
004B	4822 381 11208	Lens
007B	4822 464 90695	Chassis, Front (BLK) [U], /02B
	4822 447 50126	Chassis, Front (GLD) /02G
013B	4822 410 60194	Button, Power (BLK) [U], /02B
	4822 410 60358	Button, Power (GLD) /02G
002D	4822 501 11008	B.T. Screw (W/W) B4 x 8 [U]
003D	4822 502 12511	B.T. Screw (W/W) B3 x 8
005D		Side Panel /02G
006D	4822 444 60607	Cap, Side /02G
005G	4822 462 41477	Leg, Gold /02B/02G
	4822 462 41402	Leg, Silver [U]
006G	4822 501 11008	B.T. Screw (W/W) B4 x 8
902G	4822 532 60948	Bushing, AC Cord
▲ C001	4822 121 43732	Film Cap. 0.01μF 250V
▲ L001	4822 146 21586	Power Transformer /02B/02G
		Power Transformer [U]
▲ S001	4822 276 12647	Push Switch, Power
001T	4822 736 20991	User Manual /02B/02G
		User Manual [U]

4. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing.

Item	Use
Distortion Analyzer	Distortion measurements
Audio Oscillator	Sinewave and squarewave signal source
ACVTVM	Voltage measurements (AC)
Oscilloscope	Waveform analysis and trouble shooting and ASO aignment
Circuit Tester	Trouble shooting
DCVTVM	Voltage measurements (DC)
AC Wattmeter	Monitors primary power to amplifier
Line Voltmeter	Monitors potential of primary power to amplifier
Variable Autotransformer	Adjust level of primery power to amplifier
Shorting Plug	Shorts amplifier input to eliminate noise pickup

5. IDLING CURRENT ADJUSTMENT

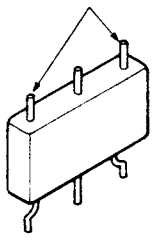
(1) Before switching the power ON, rotate the semi-fixed resisters R751 (Lch), R752 (Rch) on the PC board P701 to the center positions.
(2) Connect a digital voltmeter, set for the DC voltage input, to the pertinent test points (the marked ones of R775/R777: Lch, R776/778: Rch) on the PC board P701.
(3) After the completion of the above setup, switch the power ON and adjust the semi-fixed resisters R751 (Lch) and R752 (Rch) on the PC board P701 according to the reading of the digital voltmeter. The setting values are 12 mV (33 mA) of the both channels.

Please refer to the table and figure below.

Power ON

Elapsed time after power ON	Idling current setting value
30 sec.~ 1 min.	5 mV
1 min. ~ 2 min.	6 mV
2 min. ~ 5 min.	7 mV
5 min. ~ 12 min.	10 mV
12 min. ~	13 mV

Measurement point



R751/R752

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

R***: (1) GD05---140, Carbon film fixed resistor, ±5%, 1/4W
R***: (2) GD05---160, Carbon film fixed resistor, ±5%, 1/6W

① — Resistance value

Examples

① Resistance value

0.1Ω...001	10Ω...100	1kΩ...102	100kΩ...104
0.5Ω...005	18Ω...180	2.7kΩ...272	680kΩ...684
1Ω...010	100Ω...101	10kΩ...103	1MΩ...105
6.8Ω...068	390Ω...391	22kΩ...223	4.7MΩ...475

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.

(1) DD1---370, Ceramic condenser
Disc type
①② Temp. coeff. P350 ~ N1000, 50V

②—Capacity value
①—Tolerance

Examples

① Tolerance (Capacity deviation)
±0.25pF...0
±0.5pF...1
±5%...5

* Tolerance of COMMON PARTS handled here are as follows:
0.5pF ~ 5pF...±0.25pF
6pF ~ 10pF...±0.5pF
12pF ~ 560pF...±5%

② Capacity value

0.5pF...005	3pF...030	100pF...101
1pF...010	10pF...100	220pF...221
1.5pF...015	47pF...470	560pF...561

C***: CERAMIC CAP.

(1) DK16---300, High dielectric constant ceramic condenser
Disc type
① Temp. chara. 2B4, 50V

Capacity value

Example

② Capacity value

100pF...101	1000pF...102	10000pF...103
470pF...471	2200pF...222	

C***: ELECTROLY CAP. (⇄), FILM CAP. (⇌)

(1) EA---10, Electrolytic condenser
①② One-way lead type, Tolerance ±20%

②—Dielectric strength
①—Capacity value

Examples

① Capacity value

0.1μF...104	4.7μF...475	100μF...107
0.33μF...334	10μF...106	330μF...337
1μF...105	22μF...226	1100μF...108
		2200μF...228

② Working voltage

6.3V...006	25V...025	
10V...010	35V...035	
16V...016	50V...050	

(2) DF15---350, Plastic film condenser
One-way type, Mylar ±5% 50V
①

Capacity value

Examples

① Capacity value

0.001μF (1000pF)...102	0.1μF...104
0.0018μF...182	0.56μF...564
0.01μF...103	1μF...105
0.015μF...153	

6. ELECTRICAL PARTS LIST

REF. DESIG.	PART NO.	DESCRIPTION
		P601-PEAK INDICATOR CIRCUIT BOARD
		P601-CAPACITORS
C603	4822 124 22571	Elect 10μF 50V
C604	4822 124 22571	Elect 10μF 50V
		P601-RESISTORS
▲R601 ~ ▲R604	5322 116 55263	820Ω ±5% 1W
▲R623	5322 116 55263	820Ω ±5% 1W
▲R624	5322 116 55263	820Ω ±5% 1W
		P601-SEMICONDUCTORS
D601	4822 130 80498	Zener RD16JB2/MTZJ16C
D602	4822 130 80498	Zener RD16JB2/MTZJ16C
D603 ~ D606	4822 130 33305	Diode 1SS176, etc.
Q601	4822 209 83631	IC NJM4558DD
Q602	4822 209 83631	IC NJM4558DD
Q603	4822 130 42298	Transistor 2SC536SP, etc.
Q604	4822 130 42298	Transistor 2SC536SP, etc.
		P651-PEAK INDICATOR (LED) CIRCUIT BOARD
D651	4822 130 80326	L.E.D. LT3D8B RED 30
D652	4822 130 80326	L.E.D. LT3D8B RED 30
		P681-INPUT CIRCUIT BOARD
C681	4822 122 40617	Ceramic Cap. 0.1μF +80% −20%
C682	4822 122 40617	Ceramic Cap. 0.1μF +80% −20%
C683	4822 121 42712	Film Cap. 100pF ±5%
C684	4822 121 42712	Film Cap. 100pF ±5%
R681	4822 053 10682	Resistor 6.8KΩ ±5% 1W
J681	4822 266 30282	Terminal, 2P RCA
S681	4822 277 21465	Slide Switch, MONO/STEREO
		P701-POWER AMP CIRCUIT BOARD
		P701-CAPACITORS
CN01	4822 124 41543	Elect 1μF 50V
CN03	4822 124 22698	Elect 47μF 25V
CN04	4822 124 22698	Elect 47μF 25V
CN05	4822 124 22274	Elect 4.7μF 50V
C701 ~ C704	4822 121 42327	Film 470pF ±5%
C705	4822 124 23522	Elect 470μF 16V
C706	4822 124 23522	Elect 470μF 16V
C707	4822 123 30093	Mica 5pF ±0.5pF
C708	4822 123 30093	Mica 5pF ±0.5pF
C709 ~ C712	4822 121 42327	Film 470pF ±5%

REF. DESIG.	PART NO.	DESCRIPTION		
C713	4822 124 23516	Elect	100μF	10V
C714	4822 124 23516	Elect	100μF	10V
C715	4822 122 40617	Ceramic	0.1μF	+80% −20%
C716	4822 122 40617	Ceramic	0.1μF	+80% −20%
C721 ~ C732	4822 124 23508	Elect	39μF	63V
		P701-RESISTORS		
RN01	4822 050 22202	2.2KΩ	±5%	1/6W
RN02	4822 050 22202	2.2KΩ	±5%	1/6W
▲ RN03	4822 111 91257	1KΩ	±5%	1/6W
▲ RN04	4822 111 91257	1KΩ	±5%	1/6W
▲ RN18	4822 116 82733	470Ω	±2%	¼W, Fuse
▲ R725		2.7KΩ	±5%	¼W, Fusible
▲ R726		2.7KΩ	±5%	¼W, Fusible
▲ R729		2.7KΩ	±5%	¼W, Fusible
▲ R730		2.7KΩ	±5%	¼W, Fusible
R751	4822 100 20681	2.2KΩ, Trimming		
R752	4822 100 20681	2.2KΩ, Trimming		
▲ R753 ~ ▲ R756	4822 115 90314	68Ω	±2%	¼W, Fuse
▲ R757	4822 116 82608	680Ω	±2%	¼W, Fuse
▲ R758	4822 116 82608	680Ω	±2%	¼W, Fuse
▲ R759 ~ ▲ R766	4822 115 90314	68Ω	±2%	¼W, Fuse
▲ R767 ~ ▲ R774	4822 115 90166	10Ω	±2%	¼W, Fuse
R775 ~ R778	4822 116 82049	0.18Ω×2		3W
▲ R779	4822 116 82626	6.8Ω	±5%	1W
▲ R780	4822 116 82626	6.8Ω	±5%	1W
		P701-SEMICONDUCTORS		
DN01 ~ DN04	4822 130 80837	Diode	HSS81DC	
D701	4822 130 33305	Diode	1SS176, etc.	
D702	4822 130 33305	Diode	1SS176, etc.	
D703 ~ D710	4822 130 81052	Zener	HZ5ALL	
D711 ~ D716	4822 130 33305	Diode	1SS176, etc.	
D717 ~ D720	4822 130 82363	Zener	RD6.8JB1	
D721	4822 130 33305	Diode	1SS176, etc.	
QN01	4822 209 83312	IC	TA7317P	
QN02	4822 130 43233	Transistor	2SC2240(GR, BL)	
QN03	4822 130 43233	Transistor	2SC2240(GR, BL)	
QN04	4822 130 42951	Transistor	2SA970(GR, BL)	
Q701	4822 130 42843	F.E.T.	2SK389(GR, BL)	
Q702	4822 130 42843	F.E.T.	2SK389(GR, BL)	
Q703	4822 130 42951	Transistor	2SA970(GR, BL)	
Q706				
Q707	4822 130 43233	Transistor	2SC2240(GR, BL)	
Q708	4822 130 43233	Transistor	2SC2240(GR, BL)	
Q709	4822 130 43283	Transistor	2SC2705(O, Y)	
Q710	4822 130 43283	Transistor	2SC2705(O, Y)	
Q713	4822 130 43233	Transistor	2SC2240(GR, BL)	

REF. DESIG.	PART NO.	DESCRIPTION	
Q714	4822 130 43233	Transistor	2SC2240(GR, BL)
Q715	4822 130 42951	Transistor	2SA970(GR, BL)
Q716	4822 130 42951	Transistor	2SA970(GR, BL)
Q717	4822 130 61204	Transistor	2SC2682(P, Q, E)
Q718	4822 130 61204	Transistor	2SC2682(P, Q, E)
Q719	4822 130 42997	Transistor	2SA1142(P, Q, E)
Q720	4822 130 42997	Transistor	2SA1142(P, Q, E)
Q721	4822 130 60526	Transistor	2SD1508
Q722	4822 209 60526	Transistor	2SD1508
Q723	4822 130 43283	Transistor	2SC2705(O, Y)
Q724	4822 130 43283	Transistor	2SC2705(O, Y)
Q725	4822 130 42999	Transistor	2SA1145(O, Y)
Q726	4822 130 42999	Transistor	2SA1145(O, Y)
Q731	4822 130 60116	Transistor	2SC3280(R, O)
Q732	4822 130 60116	Transistor	2SC3280(R, O)
Q733	4822 130 60109	Transistor	2SA1301(R, O)
Q734	4822 130 60109	Transistor	2SA1301(R, O)
Q735	4822 130 60116	Transistor	2SC3280(R, O)
Q736	4822 130 60116	Transistor	2SC3280(R, O)
Q737	4822 130 60109	Transistor	2SA1301(R, O)
Q736	4822 130 60109	Transistor	2SA1301(R, O)
		P701-MISCELLANEOUS	
J705	4822 290 81364	Terminal, Speaker [U]	
	4822 290 81374	Terminal, Speaker /02B/02G	
J706	4822 290 81363	Terminal, Speaker [U]	
	4822 290 81373	Terminal, Speaker /02B/02G	
LN01	4822 280 20201	Relay	
L701	4822 157 51739	Coil, Speaker	
L702	4822 157 51739	Coil, Speaker	
L703	4822 281 50153	Relay	
		P781-DRIVER TR(L) CIRCUIT BOARD	
Q727	4822 130 43311	Transistor	2SC3298(O, Y)
Q729	4822 130 43023	Transistor	2SA1306(O, Y)
		P791-DRIVER TR(R) CIRCUIT BOARD	
Q728	4822 130 43311	Transistor	2SC3298(O, Y)
Q730	4822 130 43023	Transistor	2SA1306(O, Y)
		P801-POWER SUPPLY-1 CIRCUIT BOARD	
		P801-CAPACITORS	
C801 ~ C804	4822 124 23507	Elect	12000μF 63V
C805	4822 122 33895	Ceramic	1μF +80% −20%
		P801-RESISTORS	
▲ R801	4822	6.8Ω +0.47μF	
		P801-SEMICONDUCTORS	
▲ D801	4822 130 30984	Diode	S5V32O
▲ D802	4822 130 30984	Diode	S5V32O

REF. DESIG.	PART NO.	DESCRIPTION
		P851-POWER SUPPLY-2 CIRCUIT BOARD
		P851-CAPACITORS
C851 ~ C854	4822 122 40617	Ceramic 0.1μF +80% −20%
C857		Elect 100μF 100V
C858		Elect 100μF 100V
C859	4822 124 23516	Elect 100μF 10V
C860	4822 124 23516	Elect 100μF 10V
C861	4822 124	Elect 10μF 100V
C862	4822 124	Elect 10μF 100V
C865	4822 124 41543	Elect 1μF 50V
		P851-RESISTORS
▲ R853		22Ω ±2% ¼W, Fusible
▲ R854		22Ω ±2% ¼W, Fusible
▲ R870	4822 116 60331	1KΩ ±5% 1W
R871	4822 116 82732	15Ω ±5% 1/6W
R872	4822 116 82732	15Ω ±5% 1/6W
▲ R873	4822 115 90166	10Ω ±2% ¼W, Fuse
▲ R874	4822 115 90166	10Ω ±2% ¼W, Fuse
▲ R875		100Ω ±2% ¼W, Fusible
▲ R876		100Ω ±2% ¼W, Fusible
		P851-SEMICONDUCTORS
▲ D851 ~ ▲ D854	4822 130 80839	Diode S5688G
D855	4822 130 33305	Diode 1SS176, etc.
D856	4822 130 33305	Diode 1SS176, etc.
D859	4822 130 82363	Zener RD6.8JB1
D860	4822 130 82363	Zener RD6.8JB1
D861	4822 130 80837	Diode HSS81TD
D862	4822 130 80837	Diode HSS81TD
D863	4822 130 80837	Diode HSS81TD
Q851	4822 130	Transistor 2SD1407(O, Y)
Q852	4822 130	Transistor 2SB1061(O, Y)
Q855	4822 130 42951	Transistor 2SA970(GR, BL)
Q856	4822 130 43233	Transistor 2SC2240(GR, BL)
Q857	4822 130 43233	Transistor 2SC2240(GR, BL)
Q858	4822 130 42951	Transistor 2SA970(GR, BL)
Q859	4822 130 43233	Transistor 2SC2240(GR, BL)
Q860	4822 130 43233	Transistor 2SC2240(GR, BL)
		P851-MISCELLANEOUS
▲ F851	4822 253 30354	Fuse 400mA 250V /02B/02G
	4822	Fuse 630mA 250V [U]
▲ F852	4822 253 30354	Fuse 400mA 250V /02B/02G
		Fuse 630mA 250V [U]
		P921-POWER LED CIRCUIT BOARD
D921	4822 130 80326	L.E.D. LT3D8B RED 30

REF. DESIG.	PART NQ.	DESCRIPTION
		P951-AC OUTLET CIRCUIT BOARD [U]
▲ F951		Fuse 8A 250V [U]
▲ J951		Jack, AC Outlet [U]
J952	4822 256 30285	Jack, Fuse Clip [U]
J953	4822 256 30285	Jack, Fuse Clip [U]
		P971-AC OUTLET CIRCUIT BOARD /02B/02G
▲ F971	4822 253 30199	Fuse 4A 250V /02B/02G
▲ F972	4822 253 40166	Fuse T2.5A 250V /02B/02G
▲ J971	4822 267 31194	Jack, AC Autlet /02B/02G

NOTE ON SAFETY:
Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ▲ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.